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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,629	01/13/2004	Hanan Luss	APP 1563	2435
7590	01/19/2006		EXAMINER	
Glen Farbanish Telcordia Technologies, Inc. One Telcordia Drive, 5G116 Piscataway, NJ 08854-4157			RAMAKRISHNAIAH, MELUR	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/756,629	<b>Applicant(s)</b> LUSS ET AL.	
	<b>Examiner</b> Melur Ramakrishnaiah	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,16,17 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,6,16,17 and 25 is/are allowed.
- 6) ☐ Claim(s) 1,5,7,8,10,11 and 24 is/are rejected.
- 7) ☒ Claim(s) 9,22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3-19-04</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 5, 7-8, 10-11, 24, are rejected under 35 U.S.C 102(b) as being anticipated by Yu et al. (US PAT: 6,094,580, hereinafter Yu).

Regarding claim 1, Yu discloses a method of determining an offered load estimates for each of the plurality of bins corresponding to geographic regions of a cellular wireless territory for an operating cellular wireless system wherein a plurality of base transceiver stations (BTS's) service the territory, the method comprising the steps of: computing for each of the plurality of bins (figs. 3-5) a probability of each BTS serving a bin (col. 6, line 4 – col. 8, line 10), solving an equitable resource allocation model to determine the bin offered load estimates based on inputs comprising offered load estimates for each of the plurality of BTS's demand targets for each of the plurality of bins, and the computed probabilities, the equitable allocation module comprising a plurality of resource constraints and objective function wherein resource constraints are expressions describing relations between the computed probabilities, the BTS offered load estimates, and bin offered load estimates and wherein objective function is an expression describing relations between the bin demand targets and bin offered load estimates (col. 13, line 20 – col. 16, line 2).

Regarding claims 5, 7-8, 10-11, 24, Yu further teaches the following: each BTS's offered load estimate is based on the BTS's operating carried load and lost calls (col. 7 lines 35-67 and claim 12), receiving as inputs relative demand approximations for cellular wireless service at each of the plurality of bins, and converting the demand approximations to the demand targets such that the sum of the demand targets for plurality of bins equals the sum of the BTS offered load estimates for the plurality of BTS's (col. 12, line 1 – col. 13, line 15), objective function is a vector of non-increasing performance function wherein each performance function corresponds to a bin and is weighted normalize deviation between the bin's demand target and bin's offered load estimate, using the determined bin offered load estimates to identify bins with relative high offered load estimates and using the identified bins to service these bins, using the determined bin offered load estimates to perform load balancing among the BTS (col. 7 lines 57-67, col. 15, line 4 – col. 16, line 2), using determined offered load to determine weights to be used in performing frequency assignment among plurality of BTS's of a cellular wireless territory (col. 16, line 26-col. 17, line 40; col. 18 lines 41-50).

2. Claims 9, 22-23, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claims 3-4, 6, 16-17, 25 are allowed.

#### ***Response to Arguments***

4. Applicant's arguments filed on 11-3-2005 with respect to claims 1, 5, 7-11, have been fully considered but they are not persuasive.

Rejection of claims 1, 5, 7-11 under 35 U.S.C 102(b) as being anticipated by Yu et al. (US PAT: 6,094,580, hereinafter Yu): regarding rejection of above claims using Yu reference, Applicant argues that "Applicant's deal with the problem of estimating the offered load or demand in each of the bins in an operating cellular wireless system. Yu, on the other hand, does not deal with or have any disclosure relevant to wireless system after it is in operation. Yu addresses ... when the system will be operating, finding optimal locations for the base stations". Regarding this, Yu not only addresses the problem, given demand estimates for when the system will be operating as admitted by the applicant, he also teaches generating optimized cellular network plan from a pre-existing cellular sites (col. 2, line 60 – col. 3, line 7; col. 18 lines 19-20; claim 12) which clearly read on applicants limitation such as problem of estimating the offered load or demand in each of the bins in an operating cellular wireless system.

Applicant further discusses his system and argues that "However, what Yu solves is not an equitable resource allocation model as defined in claim 1 and by equations 10a-10c, just as Yu does not teach determining offered load estimates in an operational cellular wireless system". Regarding this, Yu teaches computer-implemented method for generating an optimized cellular network plan from a pre-existing cellular network (col. 2, line 60-col. 3, line 7). Yu also discloses the following: linear optimization which consists in trying to find the optimal value (maximal or minimal value, depending on the problem) of linear function of certain number of variables (usually labeled,  $x_1$ ,  $x_2$ , ...  $x_n$ ), given a set of  $m$  linear constraints on these variables (equalities or inequalities; col. 14, line 66 – col. 17, line 4) which clearly reads on

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applicants claim limitation such as solving equitable resource allocation model as defined in claim 1. Regarding rejection of above claims, Applicant further argues that “Applicants specifically dispute the Examiner’s assertions which are based on the Examiner’s considering that Yu obtains actual measurements of an operating system”. Regarding this, Yu teaches, as already explained above, generating optimized cellular network plan from a pre-existing cellular sites (col. 2, line 60 – col. 3, line 7; col. 18 lines 19-20; claim 12) which clearly read on obtaining obtains actual measurements of an operating system. Applicant further argues “applicants disagree with examiners assertion that Yu, with respect to prior claim 12, discloses a method of determining weights for performing frequency assignment”. Regarding this, Yu discloses following: conventionally , the elements - demand nodes in the RF plan –are given weights , thus providing a static ratio. But the present RF plan optimization improves the performance of the Greedy Algorithm by adding “weighting considerations to demand nodes D, such as traffic capacity, sift hand-offs, the area represented by the demand node, and the application of the coverage cost ratio (col. 16, line 26 – col. 17, line 40, col. 18 lines 41-50) which clearly reads on applicants prior claim 12 and new dependent claim 24.

In light of this, rejecting of claims 1, 5, 7-8, 10-11 is maintained as set forth in the office action above.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

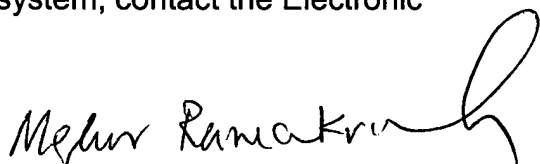
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melur Ramakrishnaiah  
Primary Examiner  
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